

IN THE CLAIMS:

1. (Currently Amended) An organic/inorganic hybrid hydrogel comprising (A) a water soluble organic polymer, (B) water swelling clay mineral which can be homogeneously dispersed in water, and (C) water, in which water (C) is contained in a three-dimensional network formed by hybridization of: a water soluble polymer (A) and a water swelling clay mineral (B) ~~which can be homogeneously dispersed in water~~, wherein, when a sample of said organic/inorganic hybrid hydrogel having a water content defined by $\{C/(A+B)\}$ of 600 to 1000 weight % and whose initial sectional area is 0.237 cm^2 is measured, a tensile load at breakage is equal to or more than 0.1N, the tensile elongation at breakage is equal to or more than 100%, and a load when the tensile elongation is 100% is more than 0.01N.

2. (Original) An organic/inorganic hybrid hydrogel according to claim 1, wherein said organic/inorganic hybrid hydrogel is obtained by polymerization of a monomer (A') which is a constituent of the water soluble polymer (A) in the presence of the water swelling clay mineral (B) and water (C).

3. (Previously amended) An organic/inorganic hybrid hydrogel according to claim 1, wherein the weight ratio of the water swelling clay mineral (B) to the water soluble polymer (A) is within a range of 0.01 to 10.

4. (Currently Amended) An organic/inorganic hybrid hydrogel according to claim 1, wherein

said water soluble polymer (A) includes polymers obtained by polymerization of ~~acrylamide derivatives~~ acrylamido compounds and/or ~~methacrylamide derivatives~~ methacrylamido compounds

5. (Original) An organic/inorganic hybrid hydrogel according to claim 1, wherein said organic/inorganic hybrid hydrogel has a critical temperature (T_c) and the state of said organic/inorganic hybrid hydrogel is reversibly changeable between the transparent and/or a volume swollen state below the critical temperature, and the opaque and the volume shrunken state above the critical temperature.

6. (Original) An organic/inorganic hybrid hydrogel according to claim 5, wherein the ratio of the volume of said organic/inorganic hybrid hydrogel in water below the critical temperature is more than 10 times larger to that above the critical temperature.

7. (Delete)

8. (Original) An organic/inorganic hybrid hydrogel according to claim 1, wherein the water content of $\{C_{max}/(A+B)\}$ at the equilibrium swollen state is equal to or more than 2000 weight %.

9. (Original) An organic/inorganic hybrid hydrogel according to claim 1, wherein a total transmission in the visible light range is equal to or more than 80 % in the case of using a 25 mm thick sample of said organic/inorganic hydrogel containing water (C) at 10 times (weight basis)

higher than the content of an organic polymer (A).

10. (Original) A dry gel body of an organic/inorganic hybrid hydrogel obtained by drying said organic/inorganic hybrid hydrogel according to claim 1.

11. (Original) An electrophoresis medium comprised of an organic/inorganic hybrid hydrogel according to claim 1.

12. (Previously amended) An aqueous solution absorbent material comprised of said organic/inorganic hybrid hydrogel according to claim 1.

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22. (Previously added) An organic/inorganic hybrid hydrogel according to claim 3,

wherein the weight ratio of the water swelling clay mineral (B) to the water soluble polymer (A) is within a range of 0.01 to 10.

23. (Currently Amended) An organic/inorganic hybrid hydrogel according to claim 2, wherein said water soluble polymer (A) includes polymers obtained by polymerization of acrylamide compounds ~~derivatives~~ and/or methacrylamide compounds ~~derivatives~~.

24. (Previously added) An aqueous solution absorbent material comprised said dry of gel body of the organic/inorganic hybrid hydrogel according to claim 10.

25. (Currently added) An aqueous solution absorbent material comprising a dry gel material ~~comprised of an organic/inorganic hybrid hydrogel in which water (C) is contained in a three-dimensional network formed by hybridization of: a water soluble polymer (A) and a water swelling clay mineral (B) which can be homogeneously dispersed in water and said dry gel body of the organic/inorganic hybrid hydrogel~~ according to claim 10.